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August 11, 1995

Mr. William P. Caton
Secretary
Federal Communications Commission
1919 M Street, N.W.
Room 222
Washington, D.C. 20554

Re: Comments in WT Docket No. 95-70

Dear Mr. Caton:

Transmitted herewith, on behalf of Geotek Communications, Inc., is an original and four (4) copies of Comments for consideration in the Notice of Proposed Rulemaking, *In the Matter of Amendment of Parts 22, 90 & 94 of the Commission's Rules to Permit Routine Use of Signal Boosters*, WT Docket No. 95-70.

If you should have any questions related to this pleading, please contact the undersigned counsel at the direct line noted above.

Sincerely,

Susan H.R. Jones

Enclosure

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Amendment of Parts 22, 90 & 94	)	**WT Docket No. 95-70**
of the Commission's Rules to Permit	)	
Routine Use of Signal Boosters	)	

Comments
of
Geotek Communications, Inc.

Geotek Communications, Inc. ("Geotek"), by its attorneys, and pursuant to Section 1.415 of the Rules and Regulations of the Federal Communications Commission ("FCC" or "Commission"), 47 C.F.R. § 1.415, hereby submits its Comments in response to the issues raised in the above-referenced proceeding.

I. INTRODUCTION

In its Notice of Proposed Rulemaking, *In the Matter of Amendment of Parts 22, 90 and 94 of the Commission's Rules to Permit Routine Use of Signal Boosters,* WT Docket No. 95-70, (released June 22, 1995) ("NPRM"), the Commission tentatively concluded that it would serve the public interest to allow routine use of signal boosters by Part 22 paging licensees, Part 90 land mobile radio and paging licenses, and part 94 multiple address system licensees (collectively, hereinafter referred to as "licensees"). The Commission further proposed that licensees should be permitted to employ signal boosters without prior Commission authorization,

provided that the licensees comply with basic technical rules and remain responsible for avoiding harmful interference to existing licensees.[1]

Because discussions regarding use of signal boosters and possible interference to existing Part 90 operations are of significant relevance to Geotek as a CMRS licensee and provider, Geotek welcomes this opportunity to participate in this proceeding by filing the following Comments.

II. COMMENTS

Signal boosters provide improved radio signal coverage in areas where man-made obstacles or natural topography create "holes" within a system's footprint of coverage. Geotek supports the Commission's efforts to permit the use of signal boosters in that they improve radio service by creating more seamless or uniform coverage. However, Geotek urges the Commission to proceed cautiously in this matter, to ensure that a new, unlicensed and uncontrolled radio service is not permitted to interrupt existing radio operations and cause destructive and untraceable interference. Accordingly, subject to the limitations suggested below, Geotek generally supports the Commission's proposal.

A. The Commission Must Establish Safeguards to Prevent Harmful Interference.

The NPRM proposes to classify signal boosters as either Class A, narrowband boosters, which amplify only those discrete frequencies intending to be retransmitted, or Class B, broadband boosters, which amplify *all* signals within the passband of the signal booster filter. Geotek supports the Commission's efforts to disintguish the two types of signal boosters based

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[1] NPRM at ¶ 12.

upon amplification mode, and suggests further that certain operational or placement restrictions adhere separately to each class of boosters, to ensure against harmful interference to adjacent channels or licensees.

Because broadband boosters indiscriminately amplify all radio signals, adjacent channels are likely to be amplified in addition to those channels intended for amplification. This result could cause devastating interference to adjacent operators or licensees. Geotek proposes, therefore, that broadband signal boosters be restricted in their use in areas where adjacent channels are not likely to be amplified, for example in enclosed or indoor areas, such as tunnels, parking garages, or other confined areas. Narrowband signal boosters, on the other hand, amplify only the frequencies intended for amplification, and thus pose lesser likelihood of interference to adjacent frequencies. Because of the discrete operation of narrowband amplifiers, therefore, Geotek does not object to their use in open, or unconfined areas.

To ensure that the two classes of signal boosters are placed into operation with the least potential for harmful interference-- Class B/broadband only in confined areas and Class A/narrowband without such restriction --Geotek urges the Commission to adopt basic technical parameters for the two classes of equipment and to enforce the distinction between the two classes by incorporating these distinctions in the type acceptance requirements for signal boosters. Once a signal booster is formally identified through the equipment authorization process as Class A/narrowband, it may be deployed without such limitation. If a signal booster does not receive a Class A distinction, it should be limited in use to only areas where adjacent channels are not likely to be amplified.

Geotek thus supports the Commission's efforts to improve radio service with the use of signal boosters but also urges the Commission to proceed cautiously, and to only permit the routine use of signal boosters after it has established minimal safeguards, designed to prevent interference.

B. Signal Boosters Must be Registered So That the Source of Any Harmful Interference is Identified.

In its NPRM, the Commission noted two approaches which might allow the Commission to properly track which licensees have employed signal boosters. UTC recommended that licensees provide specific information on booster placement with the Commission and frequency coordinators. More specifically, Motorola suggests that the Commission append a letter to a licensee's station class, reflecting the use, type and location of signal boosters.[2] Geotek supports Motorola's proposal to "register" signal boosters. This approach does not interfere with the expanded use of signal boosters and can also be quickly implemented without imposing extraordinary administrative burdens or delay upon the licensee or the Commission. Most significantly, Motorola's proposal provides a safety net for a Commission licensee who experiences harmful interference caused by a signal booster to identify the cause and the party responsible for the interference. Such a safety measure is necessary to enforce the Commission's tentative conclusion that users of signal boosters shall be responsible for correcting any harmful interference caused by a signal booster.[3]

Geotek favors this limited registration system whereby a licensee who experiences interference (if the source is a signal booster) can identify the responsible party. Geotek proposes that licensees using signal boosters transmit a letter to the Commission, for insertion into the

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[2] NPRM at ¶ 11.

[3] NPRM at ¶ 7.

station files, notifying the Commission of signal booster class, placement, and basic technical parameters. Any licensee experiencing interference could then simply check the station files of adjacent licensees and receive specific information on signal booster placement.

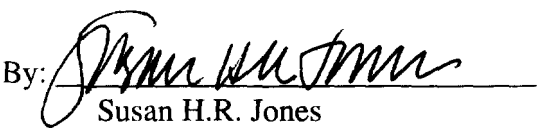
III. CONCLUSION

Geotek urges the Commission to adopt its proposed rules, provided that it establish technical baselines for Class A and Class B signal boosters, limit Class B signal boosters to areas where adjacent channel are not likely to be amplified such as confined areas, and impose procedures to "register" signal boosters.

WHEREFORE, for the foregoing reasons, Geotek urges the Commission to adopt regulations in accordance with the opinions expressed in these Comments.

Respectfully Submitted,

GEOTEK COMMUNICATIONS, INC.

By: 

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